

### ABSTRACT

5 A polypeptide self-antigen useful in a tumor-specific vaccine mimics one or  
more epitopes of an antigen uniquely expressed by cells of the tumor. The polypeptide  
is preferably produced in a plant that has been transformed or transfected with nucleic  
acid encoding the polypeptide and is obtainable from the plant in correctly folded,  
preferably soluble form without a need for denaturation and renaturation. This plant-  
produced polypeptide is immunogenic without a need for exogenous adjuvants or other  
immunostimulatory materials. The polypeptide is preferably an scFv molecule that  
bears the idiotype of the surface immunoglobulin of a non-Hodgkin's (or B cell)  
10 lymphoma. Upon administration to a subject with lymphoma, the plant-produced,  
tumor-unique scFv polypeptide induces an idiotype-specific antibody or cell-mediated  
immune response against the lymphoma.